Fermilab

GG0019

Strong Authentication at Fermilab

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ABSTRACT

In order to protect against unauthorized access to Fermilab computers, the Kerberos Network Authentication Service V5 has been implemented to provide strong authentication over the network. This manual:

- provides an introduction to the concepts, goals, features and terms involved in our strong authentication project
- describes how to access strengthened machines and use the Kerberos features
- provides descriptions of native Kerberos commands and Kerberized network commands
- describes how to "strengthen" a UNIX machine (all supported flavors: Linux, SunOS, IRIX; and describes options for unsupported flavors)
- describes how to configure a Windows or Macintosh machine to connect to strengthened UNIX machines

The manual is targeted to both administrative and end users of UNIX, Windows and Macintosh systems.

Revision Record

January 18, 2005   Minor updates throughout manual.

... (revisions in 2001, 2003)

February 29, 2000   Original Pilot Release P1.0

February 9, 2001   First Production Release 1.0. Major topics changed/reorganized/added after P1.0: guide-lines for choosing a principal, CRYPTOCard information, allowed use of Kerberized ssh, logging in from off-site, UNIX install/admin issues, Macintosh install, WRQ® X v8.02

February 16, 2001   Release 1.0a. With respect to 1.0, minor changes in sections 5.6 *Logging In Through WRQ® Reflection Software from a PC*, 9.2.1 *Obtaining Tickets (Authenticating to Ker-beros)*, 9.2.4 *Forwarding Tickets*, 10.3.1 *Specific-User Processes (cron Jobs)*.

February 21, 2001   Release 1.0b. Added 5.9.4 *Network Address Translation*, 10.3.2 *Processes Running as root*, 10.3.3 *Non-root, Non-Specific-User Processes*.

DRAFT 6/8/01   New chapters: Dear Collaborator, Ch 10, Appx A-E (Appx B pulled out from chap 5). Most chapters have some information updated.

DRAFT 8/1/01   New chapters: Network Programs (Reinstated as Appendix D), Ch 13: MIT Kerberos on Windows with Exceed 7, Ch 14: Heimdal Kerberos with Cygwin

New sections: 5.1 fnkerb.fnal.gov, 5.4 Connecting from Kerberized SSH, 5.7 Logging In with Exceed 7 from Windows, 9.3 Fermi Kerberos from RPM (Linux), D.8 Kerberized ssh and slogin, D.9 Kerberized scp

Changes in sections: Most chapters have some information updated. Significant changes in Ch 12: WRQ® Reflection on a Windows System, Ch 15: MIT Kerberos on a Macintosh System